

## CLAIMS

1. A transformant of *Streptomyces mobaraensis*, comprising a structural gene of transglutaminase derived from *Streptomyces mobaraensis* and a promoter and a terminator acting on the structural gene, which are externally introduced.  
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2. The transformant of *Streptomyces mobaraensis* according to claim 1, wherein the promoter is a promoter of transglutaminase derived from *Streptomyces mobaraensis*.  
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3. The transformant of *Streptomyces mobaraensis* according to claim 1, wherein the terminator is a terminator of transglutaminase derived from *Streptomyces mobaraensis*.  
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4. The transformant of *Streptomyces mobaraensis* according to claim 1, wherein the structural gene comprises a sequence set forth in SEQ ID NO: 1 or a sequence obtained by modifying a part of the sequence, the sequence encoding transglutaminase.  
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5. A transformant of *Streptomyces mobaraensis* comprising a DNA fragment having an externally introduced sequence set forth in SEQ ID NO: 2 or sequence obtained by modifying a part of the sequence, the sequence encoding transglutaminase.  
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6. The transformant of *Streptomyces mobaraensis* according to claim 1, which is a transformant of *Streptomyces mobaraensis* S-8112 or a mutant strain thereof.  
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7. A process for producing transglutaminase, comprising the steps of:  
culturing transformant of *Streptomyces mobaraensis* comprising a structural gene of transglutaminase derived from *Streptomyces mobaraensis* and a promoter and a terminator acting on the structural gene, which are externally introduced, under the conditions where the structural gene can be expressed; and  
collecting the produced transglutaminase.  
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8. The process for producing transglutaminase according to claim 7, wherein the promoter is a promoter of transglutaminase derived from *Streptomyces mobaraensis*.

9. The process for producing transglutaminase according to claim 7, wherein the terminator is a terminator of transglutaminase derived from *Streptomyces mobaraensis*.
10. The process for producing the transglutaminase according to claim 7, wherein  
5 the structural gene comprises a sequence set forth in SEQ ID NO: 1 or a sequence obtained by modifying a part of the sequence, the sequence encoding transglutaminase.
11. The process for producing transglutaminase according to claim 7, wherein the  
10 transformant of *Streptomyces mobaraensis* comprises a DNA fragment having an externally introduced sequence set forth in SEQ ID NO: 2 or sequence obtained by modifying a part of the sequence, the sequence encoding transglutaminase.
12. The process for producing transglutaminase according to claim 7, wherein the  
15 transformant of *Streptomyces mobaraensis* is a transformant of *Streptomyces mobaraensis* S-8112 or a mutant strain thereof.
13. A transformant of *Streptomyces lividans* comprising a structural gene of  
transglutaminase derived from *Streptomyces mobaraensis*, and a promoter and a  
terminator acting on the structural gene, which are externally introduced.  
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14. The transformant of *Streptomyces lividans* according to claim 13, wherein the  
promoter is a promoter of transglutaminase derived from *Streptomyces mobaraensis*.
15. The transformant of *Streptomyces lividans* according to claim 13, wherein the  
25 terminator is a terminator of transglutaminase derived from *Streptomyces mobaraensis*.
16. The transformant of *Streptomyces lividans* according to claim 13, wherein the  
structural gene comprises a sequence set forth in SEQ ID NO: 1 or a sequence obtained  
by modifying a part of the sequence, the sequence encoding transglutaminase.  
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17. A transformant of *Streptomyces lividans* comprising a DNA fragment having  
an externally introduced sequence set forth in SEQ ID NO: 2 or sequence obtained by  
modifying a part of the sequence, the sequence encoding transglutaminase.
18. The transformant of *Streptomyces lividans* according to claim 13, which is a  
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transformant of *Streptomyces lividans* 3131 or a mutant strain thereof.

19. A process for producing transglutaminase, comprising the steps of:  
culturing transformant of *Streptomyces lividans* comprising a structural gene  
5 of transglutaminase derived from *Streptomyces mobaraensis*, and a promoter and a  
terminator acting on the structural gene, which are externally introduced, under the  
conditions where the structural gene can be expressed; and  
collecting the produced transglutaminase.
- 10 20. The process for producing transglutaminase according to claim 19, wherein  
the promoter is a promoter of transglutaminase derived from *Streptomyces  
mobaraensis*.
- 15 21. The process for producing transglutaminase according to claim 19, wherein  
the terminator is a terminator of transglutaminase derived from *Streptomyces  
mobaraensis*.
22. The process for producing transglutaminase according to claim 19, wherein  
the structural gene comprises a sequence set forth in SEQ ID NO: 1 or a sequence  
20 obtained by modifying a part of the sequence, the sequence encoding transglutaminase.
- 23 The process for producing transglutaminase according to claim 19, wherein  
the transformant of *Streptomyces lividans* comprises a DNA fragment having an  
externally introduced sequence set forth in SEQ ID NO: 2 or sequence obtained by  
25 modifying a part of the sequence, the sequence encoding transglutaminase.
24. The process for producing transglutaminase according to claim 19, wherein  
the transformant of *Streptomyces lividans* is a transformant of *Streptomyces lividans*  
3131 or a mutant strain thereof.